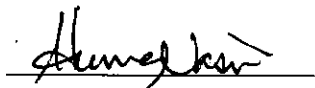


# EXHIBIT 45

I, Huma Nasir, MS, ABC-MB, affirm under penalty of perjury that the following is true and correct:


1. I am above the age of 18 and fully competent to give this affidavit.
2. I have previously submitted affidavits providing my professional opinion regarding the DNA testing previously performed in Michael Gonzales's case and whether new DNA testing would be capable of identifying contributors of DNA other than the victims. I stated, in my professional opinion, that additional DNA testing using new methods can help identify DNA other than the victims' and may help identify the perpetrator or perpetrators of the crime.
3. I write this affidavit to impress the need for additional testing on item 121 – flannel shirt collected from a closet at 517 S. Sam Houston. In light of additional information obtained by the counsel for Mr. Gonzales, I believe it is imperative that this flannel shirt be retested.
4. Previous testing was performed on bloodstains from item 121 – flannel shirt in 1994 with inconclusive results. The same area where these stains were collected may be retested now with the more sensitive PCR kits available that can produce results from minute amounts of biological material. DNA profile may be obtained from the stains that were previously inconclusive and may provide information crucial to the case.
5. Additional testing was performed on different bloodstains labeled 1A, 1B, 2, 3 and “stain on item 121” in 2000. The TX DPS crime laboratory report dated October 17, 2003 states that DNA profiles obtained from stains 1A, 1B, 2 and 3 are consistent with the DNA profile of Ms. Merced Aguirre. Additionally, DNA profile obtained from “stain on item 121” is consistent with DNA profile obtained from Mr. Manuel Aguirre.
6. From the photographs provided in the case file, it appears stains 1A, 1B, 2 and 3 were collected from the outside front and sleeves of the flannel shirt. However, there is no information provided as to where “stain on item 121” was collected. The flannel shirt has marking labeled for stains 1A, 1B, 2 and 3 but not further markings are present to notate the origin of “stain on item 121” that produced DNA profile consistent with Mr. Manuel Aguirre. Furthermore, this stain was not tested for the presence of blood; therefore, the biological source of this stain is unknown.
7. There may be more bloodstains present on this flannel shirt because only stains from the outside front of the flannel shirt were tested. Two stains tested positive for blood in 1994. Then 5 additional stains were identified and tested in 2000. Since different stains were identified upon re-examining the shirt, there may be additional stains on the shirt that were not identified.
8. All of these tested stains were identified on the outside front and outside sleeves of the flannel shirt. No DNA testing was performed on any portion of the inside of the shirt or the back of the shirt. The inside of the shirt is black and any stains on the inside of the shirt may have been difficult to identify with the naked eye. There may be bloodstains present on the inside of the shirt that may provide crucial information about the perpetrator of the crime.
9. It is my understanding that Odessa Police Department photographed item 121- flannel shirt in February 2022. In these photographs, there appears to be discoloration present on the inside lining of one of the sleeves of the shirt. The discoloration is apparent with the naked eye and could indicate staining from biological fluid.

10. Furthermore, Odessa Police Department re-examined item 121- flannel shirt under alternate light source in February 2022. Alternate light source is a tool commonly used in the forensic setting to visualize evidence that may be difficult to detect with the naked eye. Biological material and stains such as saliva, semen and blood may fluoresce under the alternate light source and provide indication that bodily fluids may be present in the fluorescent areas. Alternate light source emits ultraviolet light at certain wavelengths (400-450nm) that make it easier to detect bloodstains on fabric under the appropriate filter. Even if bloodstains do not fluoresce, the illumination of evidence aids in easier detection of stains.
11. Odessa Police Department provided photographs of the flannel shirt being examined with alternate light source. Upon reviewing the photographs, it is clear that there is fluorescent staining indicating possible presence of bodily fluid(s) on the inside lining of the flannel shirt. There are several areas on the inside lining of the shirt including the sleeve that fluoresced under the alternate light source suggesting possible presence of bodily fluids. Some of these fluorescent stains may be from bloodstains from the perpetrator since it is not uncommon for a perpetrator to stab themselves in the process of stabbing a victim. Therefore, if the perpetrator stabbed themselves and was bleeding, they may have their own blood on the inside of the shirt that was not tested. In my expert opinion, the inside of the flannel shirt should be tested for possible biological fluids.
12. In light of the new information discovered by Mr. Gonzales's counsel, and the confirmation of fluorescent staining indicating possible bodily fluids on the inside lining of the flannel shirt, it is imperative that the flannel shirt (item 121) be tested for additional stains urgently. Newly identified bloodstains can be tested using the more sensitive PCR testing that is now available and has been mentioned in my last affidavits. This more sensitive testing may be able to identify additional contributors on the shirt and could lead to information regarding the perpetrator.

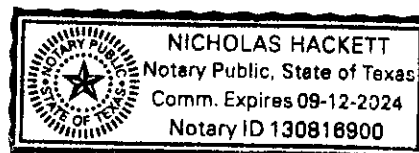
  
Huma Nasir, MS, ABC-MB  
HN Forensic Consulting LLC

2/25/2022  
Date

SWORN to before me, a Notary Public in and for the State of Texas by Huma Nasir on this 25<sup>th</sup> day of February, 2022.

  
\_\_\_\_\_  
Notary Public

My Commission expires: 9/12/2024



ATTACHMENT

## Curriculum Vitae

HUMA NASIR, M.S., F-ABC

### Education

M.S. University of Florida 2006  
Pharmaceutical Sciences with concentration in Forensic Serology and DNA

B.S. University of New Orleans 2000  
Biological Sciences

### Professional Experience

June 2017 – Present

***Forensic DNA Consultant***

HN Forensic Consulting LLC, TX

Independent Forensic DNA Consultant providing consulting services to prosecution and defense attorneys in several jurisdictions.

June 2017 – December 2018

RealTime Labs, Carrollton, TX

***Lab Manager***

Manage daily operations of the CAP accredited laboratory including supervision of ELISA and molecular testing.

June 2016 – June 2017

Bode Cellmark Forensics, VA

***Senior Forensic DNA Analyst:***

Duties include casework analysis and report writing, case reviews of work performed by other laboratories, preparing affidavits and providing expert testimony as needed. Also responsible for technical review of all validations provided to external government agencies to ensure compliance with accreditation standards and assist with laboratory work, data analysis and summary reports as needed

January 2008 – December 2015

Orchid Cellmark/Cellmark Forensics, Dallas, TX

***Technical Leader/Associate Laboratory Director***

***Forensic DNA Analyst III/IV/Team Leader (1/1/2008-11/31/11)***

***Supervisor Forensics (12/1/11-7/9/12)***

***Technical Leader, mtDNA and Y-STRs (7/9/12 – 3/4/13)***

***Technical Leader, autosomal STRs, Y-STRs and mt DNA (3/5/13-12/2015)***

- Responsible for technical management of the laboratory, including technical problem solving of analytical methods. Responsible for method evaluation and proposing new or modified analytical procedures to be used by the laboratory.
- As Associate Director, assisted in the direction, overall operation and administration of the forensic laboratory.
- Responsible for assisting with the oversight of training of new employees, quality control and quality assurance, and proficiency testing of all qualified forensic analysts in the laboratory.
- Conducted Internal Audits of the forensic laboratory and ensured compliance with various accrediting agencies. Ensured compliance with FBI's Quality Assurance Standards, SWGDAM guidelines, ASCLD standards and ISO17025 standards.
- Responsible for ensuring that casework is processed in an accurate and timely manner. Duties include case reviews, expert witness testimony as a court qualified expert, and client contact.
- Possesses in-depth expertise with all forensic DNA testing methodologies including autosomal STRs, Mini-STRs, Y-STRs and mitochondrial DNA testing.
- Continued casework analysis, reporting and technical review.

March 2001 – December 2007

ReliaGene Technologies, Inc. New Orleans, LA

***Associate Scientist I (2001-2003):***

- Extraction, PCR amplification and analysis of samples for CODIS upload.
- Assisted in development and production of Y-PLEX™ 5 and Y-PLEX™ 12 amplification kits, which consists of a primer mix, allelic ladder and controls, used for Y-STR analysis.
- **HIV Genotyping, DNA sequencing to determine patient's drug resistance profile.**
- **Performed Medical Diagnostics Testing for infectious diseases**

***Forensic DNA Analyst I/II/III and Team Leader (2003-2007):***

- Conduct scientific analysis on multiple forms of biological evidence on forensic casework utilizing PCR based DNA analysis following standard operating procedures for forensic DNA testing. Systems used on a routine basis include STR kits, Y-STR kits, MiniSTR, and Mitochondrial DNA analysis using the ABI 310, 3100 and 3130 Genetic Analyzers and the ABI 377 DNA Sequencer platforms.
- Responsible for processing casework in an accurate and timely manner. Prepare, write, and sign case reports, and available as an expert Forensic DNA analysis for court testimony.
- Routinely communicate directly with clients regarding various aspects of their case, from evidence collection to trial preparation.
- Available to less senior laboratory personnel as a resource for training, technical advice, problem solving, and questions.
- Assist Senior Forensic Scientists with the maintenance of training, QA/QC, safety measures, and proficiency testing in the laboratory.



### Laboratory Experience

- DNA Extractions (PCR-STR)
- PCR Amplification
- PCR Analysis and Interpretation
- Paternity Testing
- Forensic Biology Screening (Presumptive and Confirmatory Immunoassays)
- Forensic Analysis, Case Reporting and Technical Review
- Y-STR Experience
- Mini STR Experience
- Mitochondrial DNA Experience
- Technical Reviews
- Case Reviews

### Certifications

Molecular Biology Fellow - American Board of Criminalistics (ABC)

### Testimony Experience

Qualified and testified as a Forensic DNA analyst/expert over 100 times in several different jurisdictions.

### Publications

1. Shewale, J.G., **Nasir, H.**, Schneida, E., Gross, A.M., Budowle, B. and Sinha, S.K. 2004. Y-Chromosome STR system, Y-PLEX™ 12, for forensic casework: Development and validation. J. Forensic Sci. 49: 1278 - 1290.
2. Sinha, S.K., Budowle, B., Chakraborty, R., Paunovic, A., Guidry, R.D., Larsen C., Lal, A., Shaffer, M., Pineda, G., Sinha S.K., Schneida, E., **Nasir, H.** and Shewale, J.G. 2004. Utility of the Y-STR typing system Y-PLEX™ 6 and Y-PLEX™ 5 in forensic casework and 11 Y-STR haplotype database for three major population groups in the United States. J. Forensic Sci. 49: 691-700.
3. Sinha, S.K., **Nasir, H.**, Gross, A.M., Budowle, B. and Shewale, J.G. 2003. Development and validation of the Y-PLEX™5, a Y-chromosome STR genotyping system, for forensic casework. J. Forensic Sci. 48: 985-1000.
4. Shewale, J.G., **Nasir, H.** and Sinha S.K. 2003. Variation in migration of the DNA fragments labeled with fluorescent dyes on the 310 Genetic Analyzer and its implication in the genotyping. The Journal of the Association of Genetic Technologists. 29: 60-64.

## Abstracts

1. Orchid Cellmark's Osteo-Pure™ Bone Extraction Procedure Captures Degraded DNA to Improve STR Results. C.B. Smitherman, **H. Nasir**, W.L. Hoffman, R.W. Staub, and S.K. Sinha. Promega Meeting, 2010.
2. Shewale, J.G., **Nasir, H.**, Schneida, E., and Sinha, S.K., 2003. Development and Validation of a Y-Chromosome STR Genotyping System, Y-PLEX™ 12, for Forensic Casework. 29<sup>th</sup> Annual Meeting NEAFS 2003, Pittsfield, MA. European Academy of Forensic Science Triennial Meeting 2003, Istanbul, Turkey. 14<sup>th</sup> International Symposium on Human Identification 2003, Phoenix, AZ. American Academy of Forensic Sciences 56<sup>th</sup> Annual Scientific Meeting 2004, Dallas, TX.
3. Sudhir K. Sinha, PhD, Amrita Lal, MSFS, Chris Larson, BS, Alison Flemming, BA, **Huma Nasir, BS**, Elaine Schneida, BS, and Jaiprakash Shewale, PhD. Validation and Forensic Casework Applications of the Y-STR Genotyping Systems Y-PLEX™ 6 and Y-PLEX™ 5. Annual meeting of the American Academy of Forensic Sciences 2003, Chicago, IL.
4. Sinha, S.K., **Nasir, H.**, Schneida, E. and Shewale, J.G. Y-Chromosome Specific STR Analysis Using Y-PLEX™ 6 and Y-PLEX™ 5 Amplification Kits. FASEB Meeting 2002, New Orleans, LA.
5. Sinha, S., **Nasir, H.**, Schneida, E. and Shewale J. Y-Chromosome specific STR analysis using a combination of Y-PLEX™ 6 and Y-PLEX™ 5 amplification kits. Proc. 16<sup>th</sup> Meeting of the International Association of Forensic Sciences 2002, Edited by E. Baccino, pp. 21-24, Monduzzi Editore.